UNITED STATES PATENT AND TRADEMARK OFFICE

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10/587,986	06/08/2007	Harald Michi	10191/4243	8288

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 December 2010</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>7, 9-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☐ Claim(s) <u>7 and 9-17</u> is/are rejected.

7) ☒ Claim(s) <u>18 - 20</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some *   c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 12/07/2010 have been fully considered but they are
not persuasive. Where applicant argues that Hellmann does not disclose, "The Office
Action refers to various portions of Hellmann as assertedly disclosing these features,
but it does not explain how the cited portions identically disclose (or even suggest) the
presently claimed subject matter. Even if the Hellmann reference may concern
calculating variable values at a series of present times, it does not identically disclose
(or even suggest) the feature of calculating a future prediction time point based on the
data of the present time point acquired by the sensor system as provided for in the
context of claim 7." Where Hellmann does describe in the background of their invention
having a sensor system which detects objects this would be in real time and track an
object ahead of the vehicle which would be considered a future position/time at which
the vehicle will be at. Furthermore the system would use the data at the current time to
see if a conflict with a vehicle would happen at a future time and hence reads upon
applicant's invention.

2.   Where applicant argues that Hellmann does not have a dynamic model, a
dynamic model in it broadest sense is a mathematical equation to mimic the vehicles
motion to control it using equation, this is disclosed By Hellmann in columns 3 & 4 and
shown in fig 1.

Response to Amendment

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2.   Claims 7 – 17 are rejected under 35 U.S.C. 102(a) as being anticipated by

Hellmann et al. US Patent 6,941,215 B2 (hereafter referenced as Hellmann).

Regarding claim 1 where it is disclosed by Hellman to have a system which does

ask the driver to take over control of the vehicle when the distance between the vehicles

is below a threshold which does change as indicated below:

"An adaptive cruise control system for a host motor vehicle, comprising: a sensor

system for acquiring data of a present time point regarding a target object and data

regarding the host vehicle [Fig 1 and column 3 lines 35 – 67]; an actuator system for

controlling the longitudinal movement of the host vehicle [column 4 lines 50-60]; a

controller for intervening in the operation of the actuator system within at least one

predetermined intervention range in order to maintain a predetermined controlled target

distance of the present time point to the target object [column 3 lines 55 – 67 & column

7 lines 1 – 16]; an output device for issuing a take-over request to a driver of the host

vehicle if the predetermined controlled target distance of the present time point cannot

be maintained [column 4 lines 60 – 67 and fig 3]; and a prediction system for predicting

a conflict situation in which the predetermined controlled target distance cannot be

maintained, ... wherein the prediction system initiates the take-over request to be
issued by the output device before the conflict situation occurs [fig 3 and column 5 lines
8 – 40]." It is disclosed by Hellmann in column 3 & 4 lines 62 – 67 & 1 respectively and
shown in Figure 3 to have; "the prediction system including: an adaptation module
configured to calculate a future prediction time point based on data of the present time
point acquired by the sensor system; and a vehicle dynamic model of the target object
and the host vehicle for calculating, while still at the present point, predicting values for
variables of vehicle dynamics of the host vehicle and the target object for the future
prediction time point..."

Regarding claim 9 where it is described in columns 5 & 6 and shown in figure 3
to have a system which can: "The adaptive cruise control system as recited in claim 8,
wherein the prediction system calculates from the predicted values an anticipated
setpoint distance and an anticipated actual distance between the target object and the
host vehicle at the future prediction time point, and wherein the prediction system
initiates the take-over request to be issued by the output device if the relationship
between the anticipated setpoint distance and the anticipated actual distance satisfies a
predefined initiation criterion."

Regarding claim 10 where Hellman discloses the limitation of, "the initiation
criterion is a threshold value for the quotient of the anticipated actual distance and the
anticipated setpoint distance." This is disclosed by Hellman in column 2 lines 10 – 30
under the summary of the invention.

Regarding claim 11 where it is disclose by Hellman to have, "the prediction system further includes an adaptation module configured to dynamically vary the future prediction time point, dependent on data provided by the sensor system." This is disclosed by Hellman in column 4 lines 30 – 35.

Regarding claim 12 where it is disclosed by Hellman to have, "the prediction system further includes an adaptation module configured to dynamically vary the future prediction time point, dependent on data provided by the sensor system." This is disclosed by Hellman in column 4 lines 30 – 35.

Regarding claim 13 where it is disclosed by Hellman in column 4 lines 30 – 35 to have, "the prediction system further includes an adaptation module configured to at least dynamically vary the future prediction time point, dependent on data provided by the sensor system."

Regarding claim 14 where in column 4 lines 1 – 50, Hellman discloses the limitation of, "the prediction system further includes an adaptation module configured to dynamically vary the initiation criterion for the take-over request, dependent on data provided by the sensor system."

Regarding claim 15 where it is disclosed by Hellman to have, "the prediction system further includes an adaptation module configured to dynamically vary the initiation criterion for the take-over request, dependent on data provided by the sensor system." This is disclosed by Hellman in column 4 lines 1 – 50.

Regarding claim 16 where in column 4 lines 1 - 50 it is disclosed by Hellman to have, "the prediction system further includes an adaptation module configured to

dynamically vary the initiation criterion for the take-over request, dependent on data provided by the sensor system." This is disclosed in Hellman in column 4 lines 1 – 50.

Regarding claim 17 where in column 4 lines 1 – 50 it is disclosed by Hellman to have a system which has a, "adaptation module is further configured to dynamically vary the initiation criterion for the take-over request, dependent on data provided by the sensor system."

Allowable Subject Matter

3.   Claims 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BHAVESH V. AMIN whose telephone number is (571)270-3255. The examiner can normally be reached on M - T, Friday off, 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on 571-272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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